AMENDMENTS TO THE CLAIMS:

1. (previously presented) A liquid chromatographic system including:

at least one pumping system;

a plurality of flow cells;

a plurality of photodetectors;

said pumping system supplying solvent to at least one flow cell of said plurality of flow cells;

at least one light source;

said at least one light source applying light to at least one of said plurality of photodetectors after the light has passed through a corresponding one of said flow cells;

a time division multiplex circuit having a plurality of input means and a multiplex cycle time during which it multiplexes each of at least some of said plurality of input means for a time division whereby the time division multiplex circuit conducts signals from each individual input means of said some of said plurality of input means for a time division; and

at least one circuit means arranged to receive energy from at least one of said photodetectors for a substantial portion of said multiplex cycle time and apply it to a corresponding one of said plurality of multiplex circuit input means during said time division.

2. (original) A liquid chromatographic system in accordance with claim 1 in which said at least one circuit means is a non-switching circuit with low bandwidth, whereby sensitivity is improved.

3. (currently amended) A liquid chromatographic system including:

at least one pumping system;

a plurality of flow cells;

a plurality of photodetectors;

said pumping system supplying solvent to at least one flow cell of said plurality of flow cells;

at least one light source;

said at least one light source applying light to at least one of said plurality of photodetectors after the light has passed through a corresponding one of said flow cells;

a time division multiplex circuit having a plurality of input means and a multiplex cycle time during which it multiplexes each of at least some of said plurality of input means for a time division whereby the time division multiplex circuit conducts signals from each individual input means of said some of said plurality of input means for a time division; and

at least one circuit means arranged to receive energy from at least one of said photodetectors for a substantial portion of said multiplex cycle time and apply it to a corresponding one of said plurality of multiplex circuit input means during said time division;

said at least one circuit means being a non-switching circuit with low bandwidth, whereby sensitivity is improved;

~~in accordance with claim 2 in which~~ said at least one circuit means ~~has~~ having a fast rise time, flat topped response to an impulse and a pulse duration that lasts at least a substantial portion of the multiplex cycle time.

4. (previously presented) A liquid chromatographic system in accordance with claim 2 further including:

at least one of a plurality of first light guides receiving light from said light source and transmitting the light to said at least one flow cell; and

at least one of a plurality of second light guides positioned to receive light from said at least one of a plurality of first light guides and transmit the light to at least one of said plurality of photodetectors;

said at least one of a pluraltiy of first and one of a plurality of second light guides having a corresponding one of its ends positioned within a flow cell adjacent to each other so that light passes from an end of said first light guide through solute in said flow cell and into an end of the second light guide, whereby light is diminished within said flow cell by absorbance by solute.

5. (currently amended) A liquid chromatographic system <u>including:</u>

<u>at least one pumping system;</u>

<u>a plurality of flow cells;</u>

<u>a plurality of photodetectors;</u>

<u>said pumping system supplying solvent to at least one flow cell of said plurality of flow cells;</u>

<u>at least one light source;</u>

<u>said at least one light source applying light to at least one of said plurality of photodetectors after the light has passed through a corresponding one of said flow cells;</u>

a time division multiplex circuit having a plurality of input means and a multiplex cycle time during which it multiplexes each of at least some of said plurality of input means for a time division whereby the time division multiplex circuit conducts signals from each individual input means of said some of said plurality of input means for a time division;

at least one circuit means arranged to receive energy from at least one of said photodetectors for a substantial portion of said multiplex cycle time and apply it to a corresponding one of said plurality of multiplex circuit input means during said time division;

said at least one circuit means being a non-switching circuit with low bandwidth, whereby sensitivity is improved;

at least one of a plurality of first light guides receiving light from said light source and transmitting the light to said at least one flow cell;

at least one of a plurality of second light guides positioned to receive light from said at least one of a plurality of first light guides and transmit the light to at least one of said plurality of photodetectors;

said at least one of a pluraltiy of first and one of a plurality of second light guides having a corresponding one of its ends positioned within a flow cell adjacent to each other so that light passes from an end of said first light guide through solute in said flow cell and into an end of the second light guide, whereby light is diminished within said flow cell by absorbance by solute;

~~according to claim 4 in which~~ said ends of said first and second light guides ~~are~~ being spaced in the region of .02 to 5 millimeters apart.

6. (original) A liquid chromatographic system according to claim 5 in which said light source includes:

at least one lamp;

means for focusing light from said at least one lamp onto a diffraction grating;

means for focusing light from the diffraction grating onto an opening; and

at least some of a plurality of light guides having an end in said opening whereby said at least some of said plurality of light guides receive light from said diffraction grating.

7. (previously presented) A liquid chromatographic system in accordance with claim 6 including at least one column wherein:

said at least one pumping system comprises a plurality of pumps;

said at least one column comprises a plurality of columns, each of said plurality of columns communicates with a different one of said plurality of pumps;

said at least one photodetector comprises a plurality of photodetectors, each of said plurality of photodetectors communicating with a different one of said plurality of columns, whereby each of said photodetectors detects a signal; and

each of said photodetectors includes a corresponding photodiode positioned against one end of said second light guide.

8. (original) A liquid chromatographic system in accordance with claim 7 in which each of said light guides is in intimate contact with a different photodiode.

9. (previously presented) A method of performing chromatography comprising the steps of:

pumping solvent through a plurality of flow cells;

transmitting light through at least one of said plurality of flow cells to a corresponding one of a plurality of photodetectors;

multiplexing signals from at least some of said plurality of photodetectors during a multiplex cycle time from at least one of said plurality of photodetectors- to an output terminal during one stroke portion of said multiplex cycle time; and

transmitting energy from said at least one of said photodetectors for a substantial portion of said multiplex cycle time to a corresponding one of a plurality of multiplex circuit input means connected between a corresponding one of said photodectors and a multiplex circuit that multiplexes the signals from at least some of said plurality of photodetectors during said stroke time, wherein said energy from said multiplex circuit input means is transmitted to said output terminal during said stroke time.

10. (previously presented) A method of performing liquid chromatography in accordance with claim 9 further comprising the steps of:

transmitting light through said at least one photodetector from a first light guide;

receiving light passing through solute from said first light guide by a second light guide; and

transmitting light received by said second light guide to a second photodetector, wherein said first and second light guides have their ends positioned within a flow cell

adjacent to each other so that light passes from an end of one light guide through solute in said flow cell and into an end of the second light guide, whereby light is diminished within said flow cell by absorbance by solute.

11. (currently amended) A method of performing chromatography comprising the steps of:

pumping solvent through a plurality of flow cells;

transmiting light through at least one of said plurality of flow cells to a corresponding one of a plurality of photodetectors;

multiplexing signals from at least some of said plurality of photodetectors during a multiplex cycle time from at least one of said plurality of photodetectors to an output terminal during one stroke portion of said multiplex cycle time; and

transmitting energy from said at least one of said photodetectors for a substantial portion of said multiplex cycle time to a corresponding one of a plurality of multiplex circuit input means connected between a corresponding one of said photodectors and a multiplex circuit that multiplexes the signals from at least some of said plurality of photodetectors during said stroke time, wherein said energy from said multiplex circuit input means is transmitted to said output terminal during said stroke time;

transmitting light through said at least one photodetector from a first light guide;

receiving light passing through solute from said first light guide by a second light guide;

transmitting light received by said second light guide to a second photodetector, wherein said first and second light guides have their ends positioned within a flow cell adjacent to each other so that light passes from an end of one light guide through solute in said flow cell and into an end of the second light guide, whereby light is diminished within said flow cell by absorbance by solute

~~according to claim 10 in which~~ said step of transmitting light ~~includes~~ including the substeps of:

transmitting light from at least one lamp;

focusing light from said at least one lamp onto a diffraction grating; and

focusing light from the diffraction grating onto an opening wherein at least some of a plurality of light guides having an end in said opening whereby said at least some of said plurality of light guides receive light from said diffraction grating.

12. (original) A method in accordance with claim 11 further including the step of detecting light with photodiodes positioned against one end of said second light guide.

Claims 13-27 (cancelled).

28. (previously presented) A liquid chromatographic system according to claim 4 in which said flow cell is sufficiently large to permit fluid to flow around said first and second light guides.

29. (previously presented) A liquid chromatographic system according to claim 28 in which said flow cell is sufficiently large for preparatory chromatography.

30. (currently amended) A liquid chromatographic system including:

at least one pumping system;

a plurality of flow cells;

a plurality of photodetectors;

said pumping system supplying solvent to at least one flow cell of said plurality of flow cells;

at least one light source;

said at least one light source applying light to at least one of said plurality of photodetectors after the light has passed through a corresponding one of said flow cells;

a time division multiplex circuit having a plurality of input means and a multiplex cycle time during which it multiplexes each of at least some of said plurality of input means for a time division whereby the time division multiplex circuit conducts signals from each individual input means of said some of said plurality of input means for a time division;

at least one circuit means arranged to receive energy from at least one of said photodetectors for a substantial portion of said multiplex cycle time and apply it to a corresponding one of said plurality of multiplex circuit input means during said time division;

said at least one circuit means being a non-switching circuit with low bandwidth, whereby sensitivity is improved;

at least one of a plurality of first light guides receiving light from said light source and transmitting the light to said at least one flow cell;

at least one of a plurality of second light guides positioned to receive light from said at least one of a plurality of first light guides and transmit the light to at least one of said plurality of photodetectors;

said at least one of a pluraltiy of first and one of a plurality of second light guides having a corresponding one of its ends positioned within a flow cell adjacent to each other so that light passes from an end of said first light guide through solute in said flow cell and into an end of the second light guide, whereby light is diminished within said flow cell by absorbance by solute;

~~according to claim 4 in which~~ said ends of said first and second light guides ~~are~~ being spaced sufficiently close to block bubbles from passing between them.

IN THE DRAWINGS

The attached two sheets of formal drawings include FIGS. 19, 20 and 24. They are being submitted as requested by the Examiner to replace the previous sheets of formal drawings containing FIGS. 19, 20 and 24 that were sent by facsimile to the U.S. Patent Office on November 13, 2003, showing the word "LOGARITHMIC" correctly spelled in FIGS. 19 and 24.

Attachment: Two Replacement Sheets